DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-017458 Address: 333 Burma Road **Date Inspected:** 14-Oct-2010

City: Oakland, CA 94607

OSM Arrival Time: 630 **Project Name:** SAS Superstructure **OSM Departure Time:** 1500 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Job Site

CWI Name: See below **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component: SAS OBG**

Summary of Items Observed:

The Quality Assurance (QA) Inspector, Rick Bettencourt was on site at the job site between the times noted above. The QA Inspector was on site to randomly observe the in process welding and inspection of the weld joints identified as 7W/8W-A and hole restoration, and the following observations were made:

7W/8W-A1-A5

Upon the arrival of the QA Inspector at the above identified location it was observed the above identified weld joint appeared to be approximately 80% completed. The QA Inspector randomly observed both of the ABF welders identified below only needed to completed three or four more cover passes to complete the above identified weld joint. See below for additional information. The QA Inspector noted the weld joint was completed on this date.

A3-A1

The QA Inspector randomly observed the ABF welding operator Kenneth Chappell continued performing SAW cover pass in the center of A3 and weld to the end of section A1. The QA Inspector randomly observed the SAW parameters and they were 550 Amps, 32.5 Volts and a travel speed of 395mm/min. The QA Inspector noted the SAW parameters appeared to be in general compliance with ABF-WPS-D1.5-4042B-1. The QA Inspector noted the ABF welder did complete the SAW cover pass on this date. After the weld was completed the QA inspector noted no grinding tasks were started on this date.

A3-A5

The QA Inspector randomly observed the ABF welding operator James Zhen continued performing SAW cover

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pass in the center of A3 and weld to the end of section A5. The QA Inspector randomly observed the SAW parameters and they were 560 Amps, 32.5 Volts and a travel speed of 395mm/min. The QA Inspector noted the SAW parameters appeared to be in general compliance with ABF-WPS-D1.5-4042B-1. The QA Inspector noted the ABF welder did complete the SAW cover pass on this date. After the weld was completed the QA inspector noted no grinding tasks were started on this date.

6E/7E-A1

The QA Inspector noted ABF had previously submitted a procedure and request to excavate and repair a third time repair or R3. The QA Inspector randomly observed and noted two of the three excavations included in the R3 repair were completed on the previous day shift. The QA Inspector randomly observed the ABF welder excavate the area utilizing a burr bit grinder. The QA Inspector noted the area was excavated 2mm at a time, while the SE QC Inspector Tom Pasqualone performed magnetic particle testing approximately every 2mm until a depth of 16mm. The QA Inspector noted the original UT reject was indicated between 11mm-13mm deep, the QC Inspector informed the QA Inspector the additional 3mm was to ensure the defect was completely removed. The QA Inspector randomly observed the QC Inspector MT the excavation at approximately 13mm deep and a small liner indication was observed in the weld material. The QA Inspector noted no indication was observed in base material portion of the excavation. After the excavation was completed the QA Inspector noted the direction of the excavation was transverse to the direction of the weld joint and started at Y=500mm with a length of 120mm and a depth of 16mm. The QA Inspector randomly observed the QC Inspector MT the excavation at 16mm deep and no relevant MT indication was present. The QC Inspector accepted the excavation and the ABF welder Fred Kaddu preheated the material and began welding the repair. The QA Inspector noted the ABF welder was utilizing 1/8" E7018 low hydrogen electrodes with 138 amps. The QA Inspector noted the SMAW parameters were consistent with the acceptable parameters of ABF-WPS-D1.5-1001 repair.

7E/8E-A

The QA Inspector randomly observed the SE QC Inspector Tom Pasqualone complete the UT of the above identified weld joint. The QA Inspector counted 23 UT rejections were indicated on the weld in paint marker. No repairs have been made as of today's date.



Summary of Conversations:

As noted above.

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Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi (916)-813-3677, who represents the Office of Structural Materials for your project.

| Inspected By: | Bettencourt,Rick | Quality Assurance Inspector |
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| Reviewed By: | Levell,Bill | QA Reviewer |